WHAT IS CLAIMED IS:

1. An optical device, comprising:

a plurality of optical modulators that modulate a plurality of color lights for each color light in accordance with image information;

a color combining optical device having a plurality of light-incident sides facing the respective optical modulators, the color combining optical device combining the color lights modulated by the optical modulators, the color combining optical device being integrated with the optical modulators; and

an optical converting element provided between the optical modulator and the light-incident side, the optical converting element having a substrate on which an optical conversion film that converts optical characteristics of a light beam irradiated by the optical modulator,

wherein the optical modulator is attached to the color combining optical device through a position-adjusting spacer made of a heat-insulative material.

2. The optical device according to claim 1,

wherein the optical converting element is connected through a heat-conductive material to a base made of a heat-conductive material provided on at least one of a pair of sides of the color combining optical device intersecting the plurality of light-incident sides,

wherein the optical modulator is connected through a heat-conductive material to an optical component casing accommodating optical components disposed on an optical path from a light source to the optical modulator, at least a part of the optical component casing being made of a heat-conductive material.

3. The optical device according to claim 1, wherein the optical modulator has an optical modulating element that conducts optical modulation and an opening corresponding to an image formation area of the optical modulating element,

wherein the holding frame is made of a heat-conductive material.

4. The optical device according to claim 3, wherein an adhesive receiver that accumulates an adhesive for bonding the optical modulating element is formed around the

opening of the holding frame.

5. The optical device according to claim 4, wherein the adhesive receiver is a consecutive groove or a crater-shaped concave portion arranged in a dotted manner.

6. The optical device according to claim 3, wherein the optical modulator has a light-transmissive dustproof plate attached to a light-incident and/or light-irradiation surface of the optical modulating element to prevent dusts from adhering on the surface of the optical modulating element, the dustproof plate being connected with the holding frame through a heat-conductive adhesive provided on the outer circumference of the dustproof plate.

7. The optical device according to claim 6, wherein the heat-conductive adhesive is any one of silicone adhesive, solder and brazing filler metal.

8. The optical device according to claim 6, wherein the dustproof plate and the holding frame are connected through a frame-shaped silicone rubber.

9. The optical device according to claim 1, wherein the spacer has a contact surface having a predetermined area capable of supporting the optical modulator, the contact surface being bonded to the light-incident surface or a substrate surface of the optical modulator by a light-curing adhesive to attach the spacer to the color combining optical device.

10. The optical device according to claim 1, wherein the optical modulator has an optical modulating element that conducts optical modulation and a control cable that transfers a control signal for controlling the optical modulation of the optical modulating element,

wherein a heat-conductive coating of a heat-conductive material connected with the optical modulating element is provided on the control cable.

11. An optical unit comprising the optical device according to claim 1, and an optical

component casing that accommodates optical components disposed on an optical path from a light source to the optical modulator, at least a part of the optical component casing being made of a heat-conductive material,

wherein the optical modulator of the optical device is connected with the optical component casing through a heat-conductive plate made of a heat-conductive material.

12. The optical unit according to claim 11,

wherein the optical modulator has an optical modulating element that conducts optical modulation and a holding frame having an opening corresponding to an image formation area of the optical modulating element,

wherein the heat-conductive plate is fixed to the holding frame and is connected with the optical component casing through a heat-conductive elastic material.

13. The optical unit according to claim 11, wherein the heat-conductive plate extends along the light-incident surface of the optical modulator and a heat-conductive wall intersecting the direction in which the heat-conductive plate extends to be connected with the optical component casing is provided on the extension of the extending direction of the heat-conductive plate,

wherein the heat-conductive plate and the wall are not connected during room temperature condition where no light beam is irradiated on the optical modulator and the heat-conductive plate is connected with the wall when the heat-conductive plate is thermally expanded by a heat generated by irradiation of a light beam on the optical modulator.

14. The optical unit according to claim 11, wherein the heat-conductive plate extends along the light-incident surface of the optical modulator and has a heat-conductive wall to be connected with the optical component casing along a direction in which the heat-conductive plate extends,

wherein a distal end of the heat-conductive plate in the extending direction is slidably connected with the wall along the extending direction.

15. The optical unit according to claim 11, wherein the heat-conductive plate extends

along the light-incident surface of the optical modulator and a heat-conductive wall intersecting the direction in which the heat-conductive plate extends to be connected with the optical component casing is provided on the extension of the extending direction of the heat-conductive plate,

wherein a bent portion bent at a predetermined angle is formed on the distal end of the heat-conductive plate in the extending direction, the bent portion being connected with the wall while being biased.

16. The optical unit according to claim 11, wherein the heat-conductive plate is connected with the optical component casing through a heat-conductive frame, at least a part of the optical component casing being made of a heat-conductive material,

wherein the heat-conductive frame is attached to the optical component casing in a manner capable of advancement and retraction along the extending direction of the heat-conductive plate.

17. The optical unit according to claim 11, wherein the heat-conductive plate is made of a material selected from the group consisting of copper, aluminum, magnesium, and alloy thereof.

18. A projector that modulates a light beam irradiated by a light source in accordance with image information to form an optical image, comprising an optical unit,

the optical unit comprising: the optical device according to claim 1; and

an optical component casing that accommodates optical components disposed on an optical path from a light source to the optical modulator, at least a part of the optical component casing being made of a heat-conductive material.

19. A projector that modulates a light beam irradiated by a light source in accordance with image information to form an optical image, comprising: the optical unit according to claim 11.

20. A projector that modulates a light beam irradiated by a light source in accordance with image information to form an optical image comprising:

the optical unit having an optical device according to claim 10; and

an optical component casing that accommodates optical components disposed on an optical path from a light source to the optical modulator, at least a part of the optical component casing being made of a heat-conductive material,

wherein the heat-conductive coating provided on the control cable of the optical device has a distal end branched from the control cable to be connected with an exterior case accommodating the optical unit and/or the optical component casing.

21. The projector according to claim 18, further comprising: an exterior case that accommodates the optical unit,

wherein a gap is formed between the optical component casing and the exterior case and a cooling fan for sending cooling air to the gap is provided.